Sales Presentation

Acadia Analysts Intern

Aditya Kumar

Problem

01

A) What % of sales result in a return?

02

What % of returns are full returns?

03

What is the average return % amount (return % of original sale)?

Problem

04

What % of returns occur within 7 days of the original sale?

05

What is the average number of days for a return to occur?

06

Using this data set, how would you approach and answer the question, who is our most valuable customer?

Solution Excel

dbo.Return 1

CustomerID	ReturnDate	ReturnSales	OrderID	Return Date	Original Sales	Full Return	Retuen	Transacti	difference	7days	Net Sales
DEFAR76730	20150214	830.11	01045N4JINF	14-02-2015	2907.14	0	0.2855418	07-01-2015	38	0	2077.03
DEFAR76730	20160330	1766.78	01045N4JINF	30-03-2016	2907.14	0	0.60773819	07-01-2015	448	0	1140.36
DEFAR76730	20160330	265.15	01045N4JINF	30-03-2016	2907.14	0	0.09120648	07-01-2015	448	0	2641.99
DELAJ752Z6	20160518	1.07	01035N3JCZS	18-05-2016	1774.01	0	0.00060315	03-01-2015	501	0	1772.94
DELAJ752Z6	20160509	1174.86	01035N3JCZS	09-05-2016	1774.01	0	0.66226233	03-01-2015	492	0	599.15
DELAJ752Z6	20160719	426.93	01035N3JCZS	19-07-2016	1774.01	0	0.24065817	03-01-2015	563	0	1347.08
DELAJ752Z6	20160719	107	01035N3JCZS	19-07-2016	1774.01	0	0.06031533	03-01-2015	563	0	1667.01
DEROD75095	20150222	2799.99	01045I4JKNJ	22-02-2015	2799.99	1	1	12-01-2015	41	0	0
DEROD75095	20150222	1543.92	01045I4JKNJA	22-02-2015	1674.22	0	0.92217271	07-01-2015	46	0	130.3
DAGOK56394	20150109	586.58	12224I4GEJTA	09-01-2015	586.58	1	1	05-01-2015	4	1	0
DAHDC32608	20150126	2502.46	01055M3JTLM	26-01-2015	2888.88	0	0.86623882	09-01-2015	17	0	386.42
DAHLA46686	20150105	112.31	01035CVJDCL	05-01-2015	1561.98	0	0.07190233	06-01-2015	-1	1	1449.67
DAINS44501	20150126	293.29	12284H4HKCO	26-01-2015	293.29	1	1	02-01-2015	24	0	0
DANZH28585	20150117	999.69	12264C6GPJL	17-01-2015	1834.54	0	0.54492679	03-01-2015	14	0	834.85
DAVIW26050	20150113	216	01055R3JUWF	13-01-2015	3712.88	0	0.05817586	09-01-2015	4	1	3496.88
DELAA75741	20150117	2176.41	01035I7JDAXA	17-01-2015	2176.41	1	1	08-01-2015	9	0	0
DENAR67395	20150131	95.4	01045P6JLWS	31-01-2015	1681.69	0	0.05672865	09-01-2015	22	0	1586.29
DENEA74788	20150109	1007	01075P1KFKI	09-01-2015	1238.03	0	0.81338901	08-01-2015	1	1	231.03
DERRO40902	20150121	898.8	11254E1YBCP	21-01-2015	2842.78	0	0.31616938	02-01-2015	19	0	1943.98
DESAA72290	20150125	776.97	01015RVIKBW	25-01-2015	1726.92	0	0.44991661	07-01-2015	18	0	949.95
DESCD84115	20150117	217.71	011150MLHHN	17-01-2015	2545.51	0	0.08552707	15-01-2015	2	1	2327.8
DEMAD11952	20151104	3261.2	12214E6FSCQ	04-11-2015	3261.2	1	1	06-01-2015	302	0	0

dbo.Sales 1

CustomerID	OrderID	Sales	TransactionDate	Transaction - Date
URBAS27060	11244W2XUWE	902.14	20150109	09-01-2015
G999A39456	11244W2XVQU	1248	20150102	05-01-2015
WILL25R	110840TSGDF	533.06	20150102	10-01-2015
WILL25R	110840TSGKN	2306.25	20150102	10-01-2015
WILL25R	110840TSGNJ	229.66	20150107	09-01-2015
LOPEJ54049	110840TSIRS	3279.38	20150110	05-01-2015
SMITJ12284	11084K9SKTN	3172.58	20150113	05-01-2015
POWEB819Z1	110840TSJQY	1560.38	20150102	02-01-2015
RODRM82401	110840TSOPJ	913.46	20150108	14-01-2015
KRESH94079	01015M6ILTU	82.84	20150101	03-01-2015
BATEJ30313	01015R2INTWA	733.32	20150109	06-01-2015
PENAM73116	01015R2INWB	353.68	20150105	03-01-2015
ROBID80830	01015R2IOMJ	1207.44	20150110	07-01-2015
RICHJ51952	01015R2IONY	4110.43	20150110	06-01-2015
BENNL73286	01015R2IOOK	3778.87	20150109	06-01-2015
PROKM98476	01015R2IOQG	2281.27	20150105	02-01-2015
PROKM98476	01015R2IOQGA	527.71	20150105	09-01-2015
CORLR07918	01015R2IOZG	4724.95	20150102	03-01-2015
BARNL16464	11114I9TIPG	1097.11	20150114	07-01-2015
MEHRM94389	11114K9TPFP	2123.18	20150103	06-01-2015
MEHRM94389	11114K9TPFPA	1408.74	20150106	09-01-2015
MEHRM94389	11114K9TPHX	1524.28	20150103	05-01-2015
ROSEM29471	11114K9TPEN	2059.53	20150107	10-01-2015

dbo Returns1   Sheet6   d   Sheet2   1   A Answer   b   O

What % of sales result in a return? 🕐

A) What % of sales result in a return?

Answer

COUNTA functions to count the number of unique sales orders from dbo.Returns1 Table	15828
COUNTA functions to count the number of unique returned orders from dbo.Sales 1	33751
% of sales result in a return?	46.9%

What % of returns are full returns?

B) What % of returns are full returns?

Add a new column in the Returns1 sheet to pull the sales amount using VLOOKUP.

VLOOKUP(B3,dbo.Sales1!$B$2:$C$33752, 2, FALSE)

Add another column to determine if the return is a full return:

IF(C2=F2, 1, 0)

Count	1565
Sum	284

% of returns are full | 18%

What is the average return % amount (return % of original sale)?

ales	Full Return	Retuen	Transacti	difference	7days	Net Sales	
907.14	0	0.2855418	07-01-2015	38	0	2077.03	
907.14	0	0.60773819	07-01-2015	448	0	1140.36	52.8%
907.14	0	0.09120648	07-01-2015	448	0	2641.99	
774.01	0	0.00060315	03-01-2015	501	0	1772.94	
774.01	0	0.66226233	03-01-2015	492	0	599.15	
774.01	0	0.24065817	03-01-2015	563	0	1347.08	
774.01	0	0.06031533	03-01-2015	563	0	1667.01	
799.99	1	1	12-01-2015	41	0	0	
574.22	0	0.92217271	07-01-2015	46	0	130.3	
586.58	1	1	05-01-2015	4	1	0	
388.88	0	0.86623882	09-01-2015	17	0	386.42	
561.98	0	0.07190233	06-01-2015	-1	1	1449.67	
293.29	1	1	02-01-2015	24	0	0	
834.54	0	0.54492679	03-01-2015	14	0	834.85	
712.88	0	0.05817586	09-01-2015	4	1	3496.88	

What % of returns occur within 7 days of the original sale?

Add column to calculate the number of days between the return date and the transaction date

DAYS(Table3[@[Return Date]],Table3[@[Transaction -Date]])

Add another column to determine if the return occurred within 7 days:

IF(Table3[@Days]<=7,1,0)

Count	1565
Sum	565

% of returns occur within 7 days of the original sale | 36%

Retue	Transaction -Dat	Days	7 Days
$0.29	2015-01-07	38	0
0.60774	2015-01-07	448	0
0.09121	2015-01-07	448	0
0.0006	2015-01-03	501	0
0.66226	2015-01-03	492	0
$0.24	2015-01-03	563	0
0.06032	2015-01-03	563	0
1	2015-01-12	41	0
0.92217	2015-01-07	46	0
1	2015-01-05	4	1
0.86624	2015-01-09	17	0
0.0719	2015-01-06	-1	1
1	2015-01-02	24	0
0.54493	2015-01-03	14	0
0.05818	2015-01-09	4	1
1	2015-01-08	9	0
0.05673	2015-01-09	22	0
0.81339	2015-01-08	1	1
0.31617	2015-01-02	19	0
0.44992	2015-01-07	18	0

What is the average number of days for a return to occur?

Average
$78.40

Retue	Transaction -Da	Days	7 Days	Net-sale	Column
$0.29	2015-01-07	38	0	$2,077.03	
0.60774	2015-01-07	448	0	$1,140.36	
0.09121	2015-01-07	448	0	$2,641.99	
0.0006	2015-01-03	501	0	$1,772.94	
0.66226	2015-01-03	492	0	$599.15	
$0.24	2015-01-03	563	0	$1,347.08	Average
0.06032	2015-01-03	563	0	$1,667.01	$78.40
1	2015-01-12	41	0	$0.00	
0.92217	2015-01-07	46	0	$130.30	
1	2015-01-05	4	1	$0.00	
0.86624	2015-01-09	17	0	$386.42	
0.0719	2015-01-06	-1	1	$1,449.67	
1	2015-01-02	24	0	$0.00	
0.54493	2015-01-03	14	0	$834.85	
0.05818	2015-01-09	4	1	$3,496.88	
1	2015-01-08	9	0	$0.00	
0.05673	2015-01-09	22	0	$1,586.29	

Using this data set, how would you approach and answer the question, who is our most valuable customer?

CustomerID	Sum of ReturnSales	Sum of Original Sales	Sum of Net Sales
RODJO44719	2886.86	51597.86	48711

Solution MySQL

What % of sales result in a return?

```sql
SELECT COUNT(DISTINCT OrderID) AS total_sales
FROM new_project.sales;


-- Calculate the total number of unique sales that resulted in a return
SELECT COUNT(DISTINCT OrderID) AS returned_sales
FROM new_project.analytics_assignment;


-- Calculate the percentage of sales that resulted in a return
SELECT
    (returned_sales.total_returned_sales / sales.total_sales) * 100 AS percentage_sales_return
FROM
    (SELECT COUNT(DISTINCT OrderID) AS total_sales
     FROM new_project.sales) AS sales,
    (SELECT COUNT(DISTINCT OrderID) AS total_returned_sales
     FROM new_project.analytics_assignment) AS returned_sales;
```

Result Grid		Filter Row
	percentage_sales_return	
▶	49.2327	

What % of returns are full returns?

```sql
SELECT
    R.OrderID,
    R.ReturnSales,
    S.Sales AS OriginalSales
FROM
    new_project.sales R
JOIN
    new_project.analytics_assignment S ON R.OrderID = S.OrderID;


-- Step 2: Calculate the percentage of full returns
SELECT
    (SUM(CASE WHEN R.ReturnSales = S.Sales THEN 1 ELSE 0 END) / COUNT(*)) * 100 AS percentage_full_returns
FROM
    new_project.sales R
JOIN
    new_project.analytics_assignment S ON R.OrderID = S.OrderID;
```

percentage_full_returns
15.0725

What is the average return % amount (return % of original sale)?

```
• SELECT
      R.OrderID,
      R.ReturnSales,
      S.Sales AS OriginalSales
  FROM
      new_project.sales R
  JOIN
      new_project.analytics_assignment S ON R.OrderID = S.OrderID;


  -- Step 2: Calculate the average return percentage amount
• SELECT
      AVG(R.ReturnSales / S.Sales) AS average_return_percentage
  FROM
      new_project.sales R
  JOIN
      new_project.analytics_assignment S ON R.OrderID = S.OrderID;
```
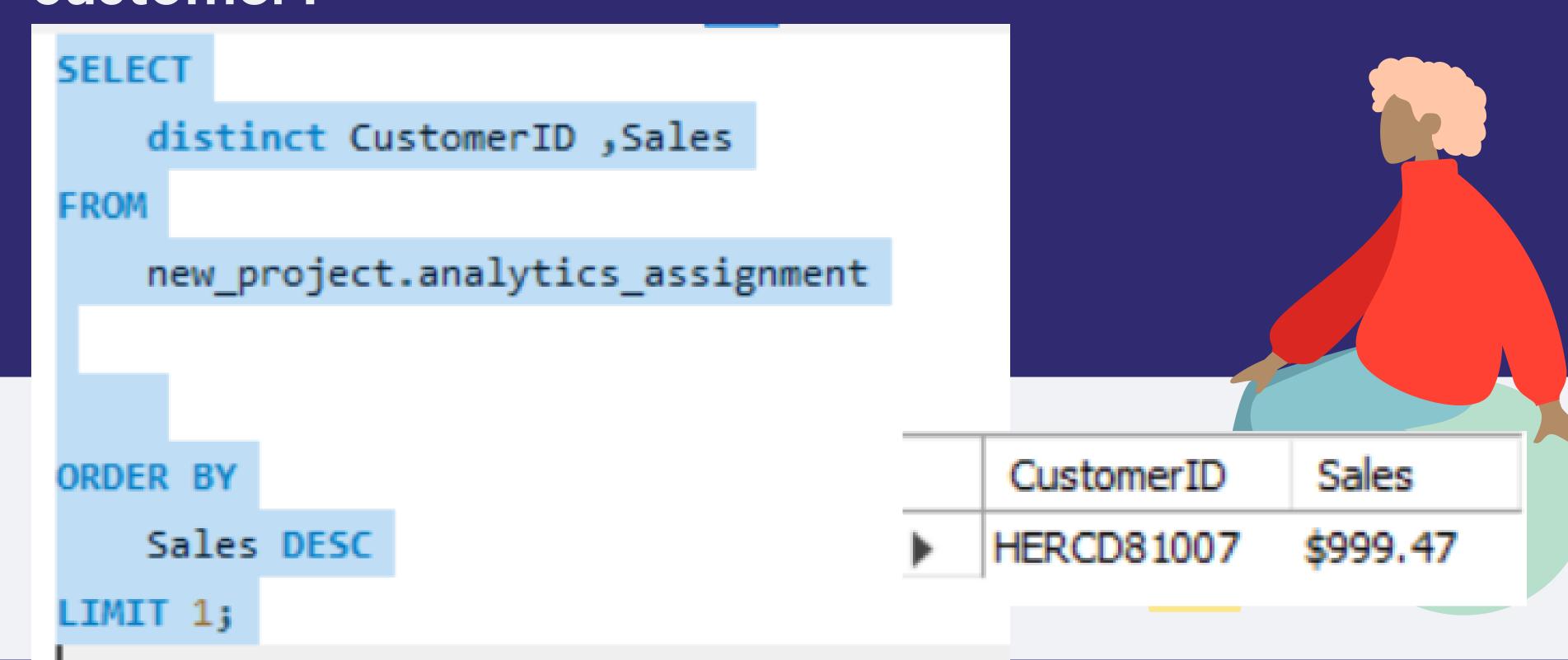
What % of returns occur within 7 days of the original sale?

```sql
SELECT
    R.OrderID,
    R.ReturnDate,
    S.TransactionDate
FROM
    new_project.sales R
JOIN new_project.analytics_assignment S ON R.OrderID = S.OrderID;
-- Step 2: Calculate the number of days between return date and transaction date, and identify returns within 7 days
SELECT
    COUNT(*) AS total_returns,
    SUM(CASE WHEN DATEDIFF(R.ReturnDate, S.TransactionDate) <= 7 THEN 1 ELSE 0 END) AS returns_within_7_days
FROM
    new_project.sales R
JOIN new_project.analytics_assignment S ON R.OrderID = S.OrderID;
-- Step 3: Calculate the percentage of returns within 7 days
SELECT
    (returns_within_7_days / total_returns) * 100 AS percentage_returns_within_7_days
FROM
    (SELECT
        COUNT(*) AS total_returns,
        SUM(CASE WHEN DATEDIFF(R.ReturnDate, S.TransactionDate) <= 7 THEN 1 ELSE 0 END) AS returns_within_7_days
    FROM new_project.sales R
    JOIN new_project.analytics_assignment S ON R.OrderID = S.OrderID) AS ReturnStats;
```

	percentage_returns_within_7_days
▶	43.7681

What is the average number of days for a return to occur?

```sql
SELECT
    R.OrderID,
    R.ReturnDate,
    S.TransactionDate
FROM
    new_project.sales R
JOIN
    new_project.analytics_assignment S ON R.OrderID = S.OrderID;


-- Step 2: Calculate the average number of days for a return to occur
SELECT
    AVG(DATEDIFF(R.ReturnDate, S.TransactionDate)) AS average_days_to_return
FROM
    new_project.sales R
JOIN
    new_project.analytics_assignment S ON R.OrderID = S.OrderID;
```

average_days_to_return
78.5275

Using this data set, how would you approach and answer the question, who is our most valuable customer?

```sql
SELECT
    distinct CustomerID ,Sales
FROM
    new_project.analytics_assignment

ORDER BY
    Sales DESC
LIMIT 1;
```

CustomerID	Sales
HERCD81007	$999.47

Thank you

—

9113751982

adityakumaraj23@gmail.com